

# PNEUMOCOCCAL VACCINATION INDICATIONS

## All Persons $\geq$ 65 years

### Persons with chronic illness:

- ▶ Cardiovascular disease (e.g., HF, cardiomyopathies)
- ▶ Pulmonary disease (including asthma)
- ▶ Diabetes mellitus
- ▶ Alcoholism, chronic liver disease

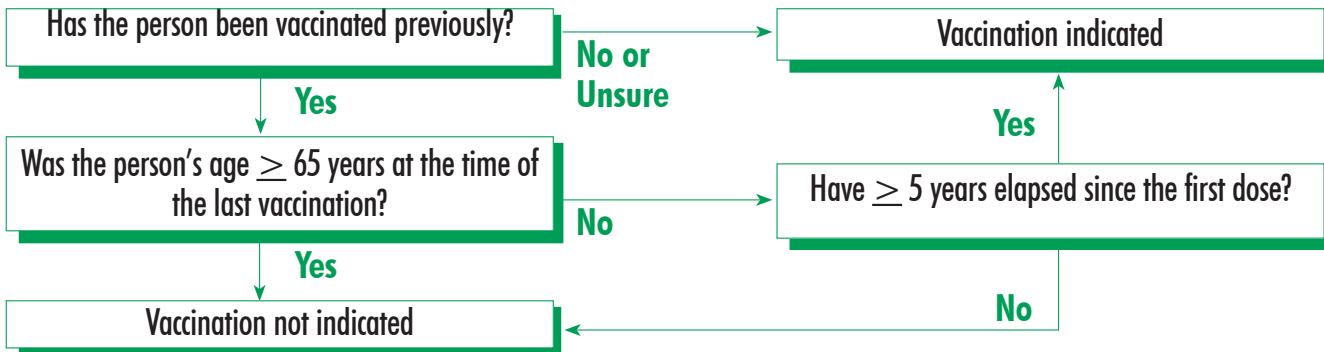
### Persons who:

- ▶ Reside in long-term care facilities
- ▶ Smoke cigarettes
- ▶ Are certain American Indian populations or Alaskan Native

## Persons who are immunocompromised:

- ▶ Lymphoma, leukemia, or multiple myeloma
- ▶ Chronic renal failure or nephrotic syndrome
- ▶ Functional or anatomic asplenia disease or splenectomy
- ▶ HIV infections
- ▶ Immunosuppressive therapy

## Re-Vaccinating Persons $\geq$ 65 Years



## Talking Points With Patients

- ▶ 40,000 Americans die from pneumococcal disease every year
- ▶ Pneumococcal organism is now becoming resistant to the drugs that were once effective in treating it
- ▶ Most pneumococcal deaths are in people  $>$  65 years
- ▶ It is acceptable to receive the PPV23 at the same time as the flu shot, and while hospitalized / acutely ill

## INITIAL ANTIBIOTIC SELECTION FOR PATIENTS WITH PNEUMONIA

### Non-ICU

- $\beta$ -lactam(IV or IM) + macrolide(IV or oral) OR
- Antipneumococcal quinolone monotherapy(IV or oral) OR
- $\beta$ -lactam(IV or IM) + doxycycline(IV or oral) OR

### If less than 65 with no risk factors for drug-resistant pneumococcus:

- Macrolide monotherapy(IV or oral)

$\beta$ -lactam = ceftriaxone, cefotaxime, ampicillin-sulbactam, ertapenem

Macrolide = erythromycin, clarithromycin, azithromycin

Antipneumococcal quinolones = levofloxacin\*\*, moxifloxacin, gemifloxacin

### ICU

- $\beta$ -lactam(IV) + macrolide(IV) OR
- $\beta$ -lactam(IV) + antipneumococcal quinolone(IV)

### If documented $\beta$ -lactam allergy:

- Antipneumococcal quinolone(IV) + aztreonam(IV)

$\beta$ -lactam = ceftriaxone, cefotaxime, ampicillin/sulbactam

Macrolide = erythromycin, azithromycin

Antipneumococcal quinolones = levofloxacin\*\*, moxifloxacin

## PSEUDOMONAL RISK

These antibiotics would also be acceptable for ICU and Non-ICU patients with Pseudomonal Risk.

- Antipseudomonal  $\beta$ -lactam(IV) + antipseudomonal quinolone(IV) OR
- Antipseudomonal  $\beta$ -lactam(IV) + aminoglycoside(IV) + antipneumococcal quinolone(IV) OR
- Antipseudomonal  $\beta$ -lactam(IV) + aminoglycoside(IV) + macrolide(IV)

### If documented $\beta$ -lactam allergy:

- Aztreonam(IV) + antipneumococcal quinolone(IV) + aminoglycoside(IV)

**For patients with renal insufficiency:** • Aztreonam(IV) + levofloxacin(IV or oral)

Antipseudomonal quinolone = ciprofloxacin, levofloxacin

Antipseudomonal  $\beta$ -lactam = ceftazidime, imipenem, meropenem, piperacillin/tazobactam, doripenem

Aminoglycoside = gentamicin, tobramycin, amikacin

Antipneumococcal quinolone = levofloxacin, gatifloxacin, moxifloxacin

Macrolide = azithromycin, erythromycin

\*\*Levofloxacin should be used in 750mg dosage when used in management of patients with pneumonia.

Adapted from the Specifications Manual for National Hospital Quality Measures and Infectious Disease Society of America (IDSA) Guidelines for discharges 10-01-09 (4Q09) through 03-31-10 (1Q10).

This material was prepared by KFMC under contract with the CMS. The contents presented do not necessarily reflect CMS policy. #9SOW-KS-BP-QDR-09-74